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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/073,992	02/14/2002	Matunda G. Nyanchama	PAT 617-2	6633

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EXAMINER

CARDONE, JASON D

ART UNIT	PAPER NUMBER
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2145

DATE MAILED: 09/27/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/073,992

Applicant(s)

NYANCHAMA ET AL.

Examiner

Jason D. Cardone

Art Unit

2145

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 14 February 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 February 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

***Claim Rejections - 35 USC § 101***

1. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

2. Claims 11-14 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. The claims disclose an application program and graphical representations. The program or representations are not tangibly limited to a product. Therefore, claims 11-14 are not tangibly embodied.

***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

4. Claim 19 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 19 recites the limitation "the application". There is insufficient antecedent basis for this limitation in the claim to depend upon claim 1.

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

Art Unit: 2145

invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

7. Claims 1-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kingsford et al. ("Kingsford"), USPN 6,574,737, in view of Heinrich, USPN 6,895,383. Regarding claim 1, Kingsford discloses a method of quantitatively assessing the vulnerability of an elementary network unit, including at least one host, in which the state of, and application bound to, each port is known, the method comprising: classifying each port on each host in the elementary network unit [ie. types, Kingsford, col. 6, lines 26-42 and col. 13, lines 6-27]; and

determining a quantitative vulnerability for the elementary network unit in accordance with the classification of each port on each host in the elementary network unit [Kingsford, col. 13, lines 6-27 and col. 16, line 55 – col. 17, line 6].

Kingsford does not specifically disclose determining a quantitative vulnerability rating. However, Heinrich, in the same field of security endeavor, discloses determining quantitative vulnerability ratings for the elementary network unit [Heinrich, col. 5, line

Art Unit: 2145

21– col. 6, line 14 and col. 7, lines 33-67]. It would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate vulnerability ratings, taught by Heinrich, into the vulnerability system, taught by Kingsford, in order to have the risk assessment be more user-friendly [Heinrich, col. 2, lines 27-37].

8. Regarding claim 2, Kingsford-Heinrich further discloses classifying each port includes: determining a network vulnerability rating for each port; determining an application vulnerability rating for each port; and determining a port status rating for each port [Kingsford, col. 8, line 56 – col. 9, line 17] [Heinrich, col. 5, line 21– col. 6, line 14 and col. 7, lines 33-67].

9. Regarding claim 3, Kingsford-Heinrich further discloses the network vulnerability rating is derived from the status of each port, and the application bound to it [Kingsford, col. 6, lines 26-42] [Heinrich, col. 7, lines 33-67].

10. Regarding claim 4, Kingsford-Heinrich further discloses determining the quantitative vulnerability rating for the elementary network unit includes: determining, for each port, a port vulnerability rating as a function of the network vulnerability rating, the application vulnerability rating and the port status rating; determining, for each host in the elementary network unit, a host vulnerability rating as a function of the port vulnerability rating for each port associated with the host; and determining the quantitative vulnerability rating for the elementary network unit as a function of the

Art Unit: 2145

determined host vulnerability ratings for each host in the elementary network unit [Kingsford, col. 13, lines 6-27 and col. 16, line 55 – col. 17, line 6] [Heinrich, col. 12, line 53 – col. 14, line 35].

11. Regarding claim 5, Kingsford-Heinrich further discloses the network vulnerability rating is determined by network protocol conventions regarding the assignment of ports [Kingsford, col. 14, line 45 – col. 15, line 30] [Heinrich, col. 5, line 21– col. 6, line 14].

12. Regarding claims 6-8, Kingsford-Heinrich further discloses the application vulnerability rating is determined by the application bound to the port, wherein the application vulnerability rating is further determined by a version of the application and an operating system associated with the application [Kingsford, col. 8, line 56 – col. 9, line 17] [Heinrich, col. 5, line 21– col. 6, line 14].

13. Regarding claims 9 and 10, Kingsford-Heinrich further discloses the port status rating is determined by the state of the port, wherein the state of the port is selected from open, closed and filtered [Kingsford, col. 14, line 45 – col. 15, line 30] [Heinrich, col. 17, lines 5-30].

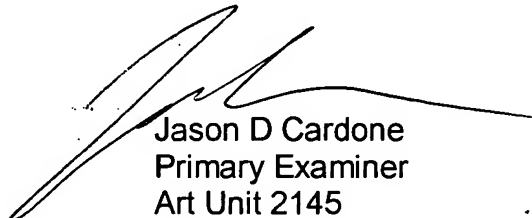
14. Regarding claims 11-19, they have similar limitations as claims 1-10. Therefore, the similar limitations are disclosed under Kingsford-Heinrich for the same reasons set forth in the rejection of claims 1-10 [Supra 1-10].

***Conclusion***

15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jason D. Cardone whose telephone number is (571) 272-3933. The examiner can normally be reached on Mon.-Thu. (6AM-3PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rupal Dharia can be reached on (571) 272-3880. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Jason D Cardone  
Primary Examiner  
Art Unit 2145

September 23, 2005